

Claims:

1. A disposable cover and drape for an endoscopic camera system comprising an optically clear elastomeric film mounted across the annular opening of a first ring segment and insertable between an elongate lens assembly for insertion into a human body cavity and a mating camera coupler, said first ring segment being dimensioned to cooperatively mate with and be secured to a second ring segment carrying an expandable flexible plastic tube having a first open end mounted to the annular opening of the second ring segment and a second open end for expanding over and substantially covering said camera system for preventing contamination of the outer surfaces of said camera system in conjunction with a surgical or exploratory procedure, said elastomeric film having sufficient elastic memory to accept repeated mounting and de-mounting of one or more elongate lens assemblies without tearing, cracking, splitting or rupturing such that said elastomeric film remains intact and free of distortion.

2. In accordance with Claim 1, wherein each of the ring segments cooperatively mates with a third ring segment positioned intermediate the first and second ring segments.

3. In accordance with Claim 1, said optically clear elastomeric film may be made from a material selected from a group of elastomeric urethanes including polyether or polyester based aliphatic, polycaprolactate aliphatic, cycloaliphatic or aromatic, or any blend thereof.

4. In accordance with Claim 1, said optically clear elastomeric film may be made from elastomeric silicones.

5. In accordance with Claim 1, said optically clear elastomeric film having an elongation factor of between 100 percent to 1000 percent.

6. In accordance with Claim 1, said optically clear elastomeric film having a hardness over the range of 50 Shore A to 50 Shore D.

7. In accordance with Claim 1, said optically clear elastomeric film having a modulus of 1.0 to 15.0 MPa at 100% elongation and a modulus of 2.0 to 50.0 MPa at 300% elongation.

8. In accordance with Claim 1, said expandable flexible plastic tube may be made from any waterproof elastomeric or plastic material having a flexibility to collapse and extend in
5 accordion-like fashion with a material thickness in the range between 1.0 mil to 5.0 mils.